

REMARKS

Upon entry of the present amendment, claims 1, 2, 5-7, 9, 11, 13-21 and 25-44 will have been amended to correct informalities in the claim language and to more clearly define the invention, while not substantially affecting or narrowing the scope of these claims. Also, claim 1 will have been amended to recite that the band spreading communications system is based on an orthogonal code to address the Examiner's rejection under 35 U.S.C. § 112, second paragraph, discussed below. Also, claim 14 will have been amended to correct an error in the Preliminary Amendment, in which claim 14 was inadvertently written as claim 15. Applicants respectfully submit that all pending claims are now in condition for allowance.

In the above-referenced Official Action, the Examiner objected to the Abstract for including "FIG.10a," and required amendment. Applicants have accordingly amended the Abstract to delete "FIG. 10a," and to make other minor changes. Accordingly, Applicants respectfully request the Examiner to withdraw the objection.

Also in the above-referenced Official Action, the Examiner rejected claims 5-7 and 11-12 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter regarded as the invention. In particular, the Examiner asserted that "the orthogonal code" recited in claims 5, 6 and 7, and "the second communication station" recited in claim 11 lacked antecedent basis. (Claim 12 was rejected because it depends from claims 11.)

Claim 1 has been amended to recite that the band spreading communications system is based on an orthogonal code, so that recitation of the orthogonal code in claims 5-7 has proper antecedent basis. Also, claim 11 has been amended to recite

that ---each of--- the second communications uses a separate common power control channel of the first communication station. Accordingly, Applicants respectfully request withdrawal of the Examiner's rejections under 35 U.S.C. § 112, second paragraph.

In the above-referenced Official Action, the Examiner also provisionally rejected claims 1-44 under the doctrine of non-statutory obviousness-type double patenting, as being unpatentable over claims 1-61 of co-pending U.S. Patent Application No. 10/089,051, filed March 25, 2002. Applicants respectfully traverse the double patenting rejection as premature, because neither the present application nor co-pending U.S. Patent Application No. 10/089,051 has allowed claims, and thus the recitations of the claims are not yet finally determined. In fact, the claims were recently amended on May 1, 2006, in co-pending U.S. Patent Application No. 10/089,051. An appropriate comparison of the claims therefore cannot be made at this time.

Further, filing a terminal disclaimer in the present application is not appropriate since the present application has an earlier filing date (February 4, 2002) than co-pending U.S. Patent Application No. 10/089,051 (March 25, 2002). Thus, even if a double patenting rejection were appropriate, it would appear to be relevant in the co-pending application.

The Examiner also rejected claims 1 and 6 under 35 U.S.C. § 103(a) as being unpatentable over CHEN et al., "Multicarrier CDMA with Adaptive Frequency Hopping for Mobile Radio System," in view of U.S. Patent No. 6,498,788 to EMILSSON et al. The Examiner rejected claims 5 and 7 under 35 U.S.C. § 103(a) as being unpatentable over CHEN et al. in view of EMILSON et al. in further view of U.S. Patent No. 6,657,985

to PARK. Applicants respectfully traverse these rejections, at least for the reasons stated below.

With respect to independent claim 1, that the Examiner relied on CHEN et al. to teach performing multiplexing for communications channels using an orthogonal code hopping multiplexing communication. The Examiner admitted that CHEN et al. do not teach using statistical multiplexing in a communications network, and therefore relied on EMILSON et al. However, claim 1 specifically recites performing statistical multiplexing by using orthogonal code hopping multiplexing communications, which EMILSON et al. do not teach or suggest. Merely disclosing statistical multiplexing without orthogonal code hopping does not teach or suggest the subject matter of claim 1, either alone or in combination with CHEN et al. Further, there is no apparent motivation to take statistical multiplexing used for code division determinations disclosed in EMILSON et al. and use it in a code hopping application as disclosed in CHEN et al. Accordingly, Applicants respectfully request withdrawal of the rejection of claim 1.

The Examiner relied on PARK only to teach an orthogonal code being a Hadamard code or a gold code, as recited by claims 5 and 7, respectively. PARK therefore does not overcome the deficiencies of the combination of CHEN et al. and EMILSON et al.

With regard to claims 2-31, Applicants assert that they are allowable at least because they depend, directly or indirectly, from independent claim 1, which Applicants submit has been shown to be allowable.

With regard to the remaining claims, Applicants note that the Examiner did not reject claims 2-4 and 8-44 (including independent claims 32, 35 and 36) over prior art.

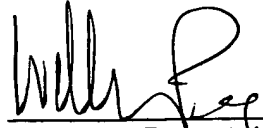
Rather, the Examiner only provisionally rejected these claims under the doctrine of non-statutory obviousness-type double patenting, as being unpatentable over claims 1-61 of co-pending U.S. Patent Application No. 10/089,051. As addressed above, Applicants respectfully submit that the double patenting rejection is improper, and accordingly, Applicants assert that claims 2-4 and 8-44 are allowable

In view of the herein contained amendments and remarks, Applicants respectfully request reconsideration and withdrawal of previously asserted rejections set forth in the Official Action of December 2, 2005, together with an indication of the allowability of all pending claims, in due course. Such action is respectfully requested and is believed to be appropriate and proper.

Any amendments to the claims which have been made in this Reply, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attached thereto.

Should the Examiner have any questions concerning this Reply or the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,
Dan-Keun SUNG et al.


Bruce H. Bernstein
Reg. No. 29,027

William Pleprz
Reg. No. 33,636

June 1, 2006
GREENBLUM & BERNSTEIN, P.L.C.
1950 Roland Clarke Place
Reston, VA 20191
(703) 716-1191